

## **REMARKS**

This Amendment should be entered, because it merely cancels claims 18-19.

### **Independent Claim 9**

The system of claim 9 thermally drives the solvent vapor back to the solvent reservoir by producing a temperature in the distillation tank that is high enough to evaporate the solvent and a temperature at the reservoir that is low enough to condense the solvent.

In contrast, Low mechanically pumps the solvent vapor back to his reservoir 26 using a compressor 23. In Oesch, the solvent doesn't return to the reservoir (12) as all.

The Examiner cites Low's optional "reflux condenser" (col. 5, lines 37-41) as suggesting the claim limitation of thermally driving the solvent vapor back to the reservoir. However, Low states (col. 5, lines 37-41) that his reflux condenser is adjacent outlet line 21 to condense "volatile fractions of biomass extract that are inadvertently entrained with the solvent vapour as it exits the still 19." Low's reflux condenser thus returns **biomass extract** back into the **still** 19, which is unrelated to the claim limitation of returning **solvent vapor** back to the **reservoir** 26.

The Examiner notes that "second pump 82" of the present invention pumps solvent vapor. However, it does so only when needed to remove entrained air from the solvent (as explained in page 6, line 30 to page 7, line 9), thus not contradicting the claim requirement of thermally driving the solvent from the distillation tank to the reservoir. This is in contrast to Low's system, in which the only way the solvent can return to the reservoir 26 is through compressor 23.

Therefore, claim 9 is patentable over the cited prior art.

### **Independent Claim 14**

Claim 14 recites two oil extraction systems, each having its own extraction tank and distillation tank. Each distillation tank receives a solvent/oil mixture from its corresponding extraction tank and distills off the solvent, leaving oil behind. The oil left behind, from both extraction tanks, is collected in a single oil collection tank."

This is not suggested by the cited references. None of the references discloses two extraction systems as claimed, much less a single oil collection tank connected to both as claimed. Oesch's "at least one evaporator (2)" at col. 2, line 56, cited by the Examiner as suggesting multiple extraction systems, is not referring to any extraction system but instead to a minor heating component within Oesch's autoclave 1.

The Examiner cites Oesch's collector vessel 9 in col. 3, lines 60-67 (misabeled "g" in Oesch's Fig. 1) as corresponding to the claimed oil collection tank. But Oesch's collector vessel 9 does not meet the requirements of the claimed oil collection tank. That is because Oesch's collector vessel 9 receives the solvent/oil mixture directly from Oesch's autoclave 1 -- not from any distillation tank, and especially not from two distillation tanks from two separate extraction systems as claimed.

Therefore, claim 14 is patentable over the cited prior art.

### **Independent Claim 17**

Claim 17, as amended, recites "means for replacing the solvent in the system with a second solvent while the system remains closed to the atmosphere." This is not disclosed or suggested by the references.

The Office Action cites Low's disclosure (col. 3, lines 37-40) of recycling the solvent in a closed loop system. However, Low's "recycling" of the solvent is totally different than the claimed "means for replacing the solvent in the system with a second solvent." The claimed "replacing" entails both 1) removing the first solvent from the system, and then 2) inserting a second solvent in its place -- neither of which is suggested by Low or possible to achieve with Low's system.

The Office Action (pp. 2 and 4) cites Flanigan col. 7, lines 20-35 as teaching a means for adding fresh solvent, to show that adding fresh solvent is neither unobvious nor critical in the art. While Flanigan (col. 7, lines 20-35) does introduce "clean solvent" into inlets 1,2 of his system to make up for "contaminated solvent" being discarded through outlet 8 and incinerated, this is not, as claimed, "replacing the solvent in the system with a second solvent while the system remains closed to the atmosphere." Additionally, Flanigan's introduction of "clean solvent" into his system to replace the "contaminated solvent" being discarded would not suggest modifying Low's system to do the same, since Low's system continuously purifies the initial solvent through distillation.

Therefore, claim 17 is patentable over the cited prior art.

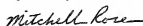
### **Dependent Claims 10-13 and 15-16**

The remaining claims all depend from base claims that are explained above to be patentable over the cited prior art. The limitations that the dependent claims add to the base claims distinguish the dependent claims further from the prior art. Therefore, the dependent claims also are patentable.

For example, dependent claim 10 includes all the limitations of base claim 9, which is patentable over the prior art as explained above. For that reason alone, claim 10 is also patentable. However, claim 10 includes the added limitation of cooling the solvent in the reservoir using a cooling device, to produce the temperature differential between the reservoir and the distillation tank. This limitation of cooling the reservoir enables thermally driving the solvent at a temperature that is lower than if the thermal driving were achieved only by heating the distillation tank and leaving the reservoir at room temperature (which is important as explained in the present application at p. 5, lines 21-23 and p. 6, lines 15-19). In contrast, none of the references cools the reservoir. Accordingly, the limitation added by claim 10 distinguishes claim 10 further from the prior art.

The application is therefore now in condition for allowance, and allowance is requested.

Respectfully submitted,



---

Mitchell Rose (Reg. No. 47,906)  
JONES DAY  
901 Lakeside Ave.  
Cleveland, OH 44114  
(216)586-7094

Date: 3/30/07